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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,091	10/06/2000	Cristian M. Hera	17556-057	1402
30623	7590	08/26/2004	EXAMINER	
MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C. ONE FINANCIAL CENTER BOSTON, MA 02111			WAHBA, ANDREW W	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/684,091	HERA ET AL.
	Examiner Andrew W Wahba	Art Unit 2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 28 May 2004.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-3,5-8,10-14,16-18 and 20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 18 and 20 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 06 October 2000 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen (US Patent 5,436,896) in view of Schnell et al (US Patent 6,735,168).

With respect to claims 1, 6, 12, and 16, Andersen et al discloses a conference bridge for packet speech signal networks. The conference bridge receives a plurality of speech signals in the form of data packets. This step corresponds to the applicant's receiving of N encoded speech signals. Andersen et al proceeds to determine if one speech signal is louder than the others in the case that more than one person is speaking. The loudest speech signal is selected (column 5, lines 6-10 and Fig 4). This step corresponds to the applicant's selection of L channels. Andersen et al then replicates the selected signal, but does not send the signal to the originator to prevent echo (column 5, lines 59-63). This step corresponds to the applicant's production of at least N minus L sets of signals similar to the L signals.

Andersen does not teach or fairly suggest wherein the signal processing arrangement is configured to transmit the signals toward the terminals in an unmixed format.

Schnell et al discloses a signaling server 410 (signal processing arrangement) that receives voice and signaling data from a data network 440 and proceeds to separate (unmixed) the combined voice and signaling data for output (transmit) over respective voice trunks 424 and signaling links 422 (signals toward the terminals) (column 4, line 65 – column 5, line 2).

A person of ordinary skill in the art would have been motivated to employ Schnell et al in Andersen to send uncombined signals to terminals. By sending uncombined signals to the terminals, the processing of signals, such as the selection of the N loudest signals, may occur at the terminals rather than at a central conference bridge. As a result, a user of the terminal would have more options as to how the signals are combined at his/her terminal. For example, a user may raise the volume of another participant. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Schnell et al and Andersen to obtain the claim as specified in claim 1.

With respect to claim 2, 7 and 17, Andersen et al determines the loudest speech signal by comparing energies (column 5, lines 6-10).

With respect to claims 3, 8, 13, and 18, Andersen et al does not send the signal to the originator to prevent echo (column 5, lines 59-63).

With respect to claim 11 and 14, the selected number of channels is one in the Andersen et al patent (column 5, lines 43-47).

With regard to claims 5, 10 and 20, Andersen-Schnell discloses the transmitting of uncombined signals to individual terminals as described in the rejection of claims 1, 6, 12, and 16. Andersen discloses a conference bridge in which data is transmitted in the form of ATM cells (packets) (column 4, lines 31, 32). It is inherent that ATM cells have data portions and headers, in which the headers are altered so that data is transmitted to the appropriate terminal.

3. Claims 1, 2, 3, 6, 7, 8, 11, 12, 13, 14, 16, 17, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weller (US Patent 6,662,211) in view of Schnell et al (US Patent 6,735,168).

With respect to claims 1, 6, 12 and 16, Weller discloses a method to provide a conference call. Weller presents a conference call system that reads PCM samples for incoming channels (column 7, lines 53-57 and Fig 5). The PCM channels correspond to the applicant's N encoded speech signals. Weller then selects the N loudest channels in an array (column 8, lines 32-36). This step corresponds to the applicant's selection of L channels. Weller then sums the N loudest samples to form the conference information and subtracts the current sample for each of the N loudest channels (column 8, lines 38-49). This step corresponds to the applicant's production of at least N minus L sets of signals similar to the L signals.

Weller does not teach or fairly suggest wherein the signal processing arrangement is configured to transmit the signals toward the terminals in an unmixed format.

Schnell et al discloses a signaling server 410 (signal processing arrangement) that receives voice and signaling data from a data network 440 and proceeds to separate (unmixed) the combined voice and signaling data for output (transmit) over respective voice trunks 424 and signaling links 422 (signals toward the terminals) (column 4, line 65 – column 5, line 2).

A person of ordinary skill in the art would have been motivated to employ Schnell et al in Weller to send uncombined signals to terminals. By sending uncombined signals to the terminals, the processing of signals, such as the selection of the N loudest signals, may occur at the terminals rather than at a central conference bridge. As a result, a user of the terminal would have more options as to how the signals are combined at his/her terminal. For example, a user may raise the volume of another participant. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Schnell et al and Weller to obtain the claim as specified in claim 1.

With respect to claim 2, 7 and 17, Weller determines the N loudest by comparing energies (column 8, lines 7-21).

With respect to claims 3, 8, 13, and 18, Weller subtracts the current sample for each of the N loudest channels (column 8, lines 44-49).

With respect to claims 11 and 14, the Weller patent allows the selected number of channels to be one.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W Wahba whose telephone number is (703) 305-4684. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Wahba



August 18, 2004

  
KENNETH VANDERPUYE  
PRIMARY EXAMINER